

<b>NWS FORM E-5</b> <small>(11-88)</small> <small>(PRES. by NWS Instruction 10-924)</small>	<b>U.S. DEPARTMENT OF COMMERCE</b> <b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b> <b>NATIONAL WEATHER SERVICE</b>	<b>HYDROLOGIC SERVICE AREA (HSA)</b> <b>WFO Jackson, Mississippi</b>
<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>		REPORT FOR: MONTH      YEAR <b>April      2017</b>
TO:      Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE <b>Bill Parker, Meteorologist In-Charge</b>
		DATE <b>05/31/2017</b>

*When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)*

☐ An X inside this box indicates that no river flooding occurred within this Hydrologic Service Area.

## Synopsis

This April was a particularly wet month in this HSA (Hydrologic Service Area). The Jackson and Vicksburg climate sites both measured more than 10 inches of rain for the month. Most climate sites recorded much above normal rainfall for the month, but only those sites in the northeast part of the HSA (Greenville and Greenwood) recorded near normal amounts. The month was another warm month as well. All climate sites recorded at least three degrees warmer than the normal April monthly average temperature.

## Weather Highlights

The month of April started out with a big rainmaker system. A low pressure developed in southern Texas on the 2<sup>nd</sup> and lifted northeastward on the 3<sup>rd</sup>. It brought abundant Gulf moisture into the region and dropped up to 9" of rainfall in central Mississippi. Most of the HSA received at least 2" with a big chunk of the area measuring more than 3". The system pushed off to the east on the 4<sup>th</sup> and high pressure settled into the region for about a week's stretch.

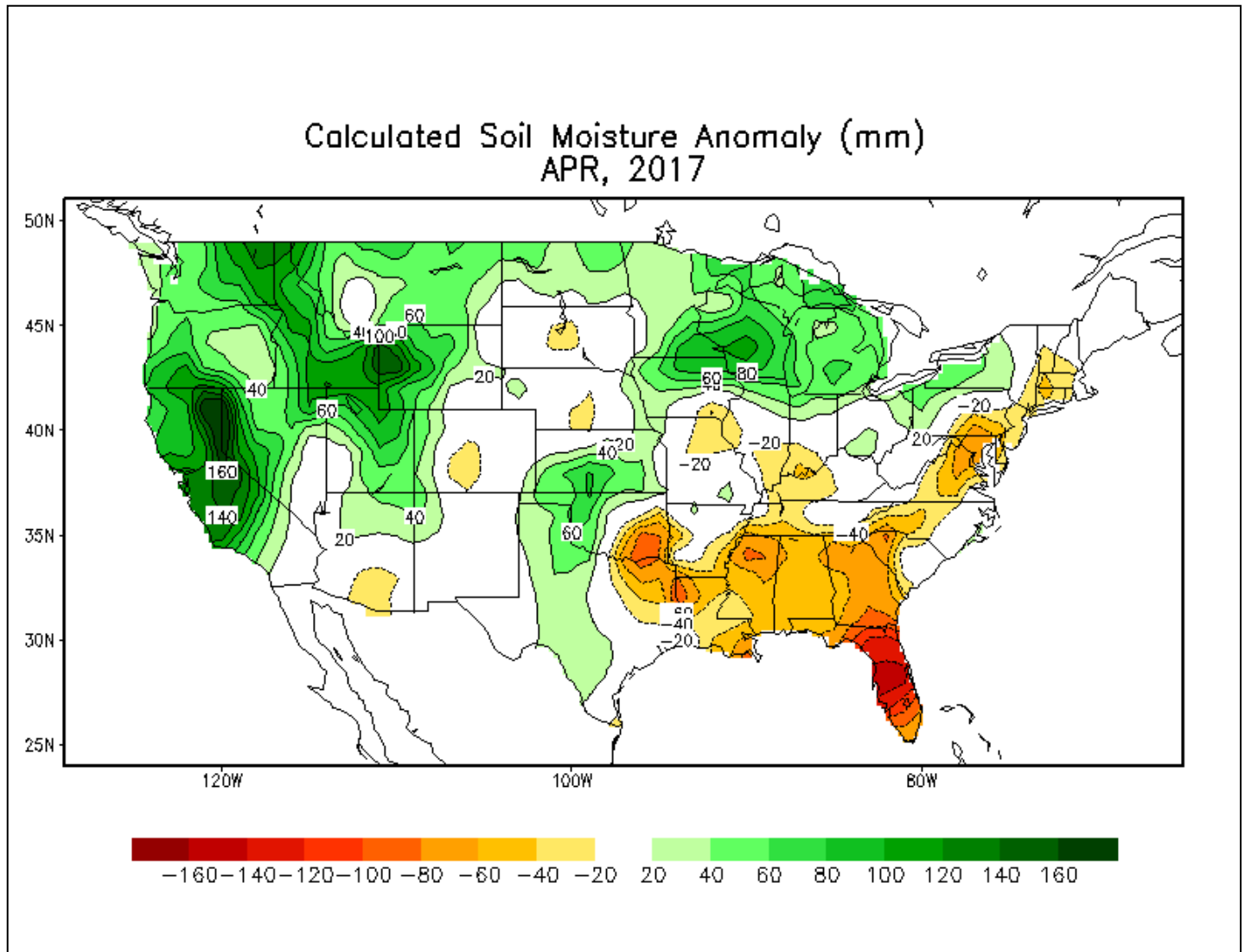
The next cold front moved through on the 12<sup>th</sup>, but did not bring much rainfall. Only very isolated amounts of up to ¾" were recorded, particularly in northeast Louisiana. High pressure again moved in quickly behind the frontal passage and led to several days of pleasant weather. On the 16<sup>th</sup> and 17<sup>th</sup>, as the high pushed to the east and the ArkLaMiss began receiving return flow from the Gulf, some warm advection showers and storms formed. These showers and storms dropped up to 1" of rainfall in isolated locations throughout the HSA. The coverage of storms increased on the 18<sup>th</sup> as a weak low pressure passed just to the north. With this, isolated locations received up to 1.5".

On the 22<sup>nd</sup>, a cold front moved through the HSA from the northwest. This system brought scattered rainfall totals up to 1.5 inches. Most of this rain fell east of the Mississippi River and even more so east of I-55. Again, this system moved out quickly and left the HSA with a few days of peace. The next cold front on the 27<sup>th</sup> brought widespread rain of 1" to 1.5" to areas north of Highway 84 in the HSA.

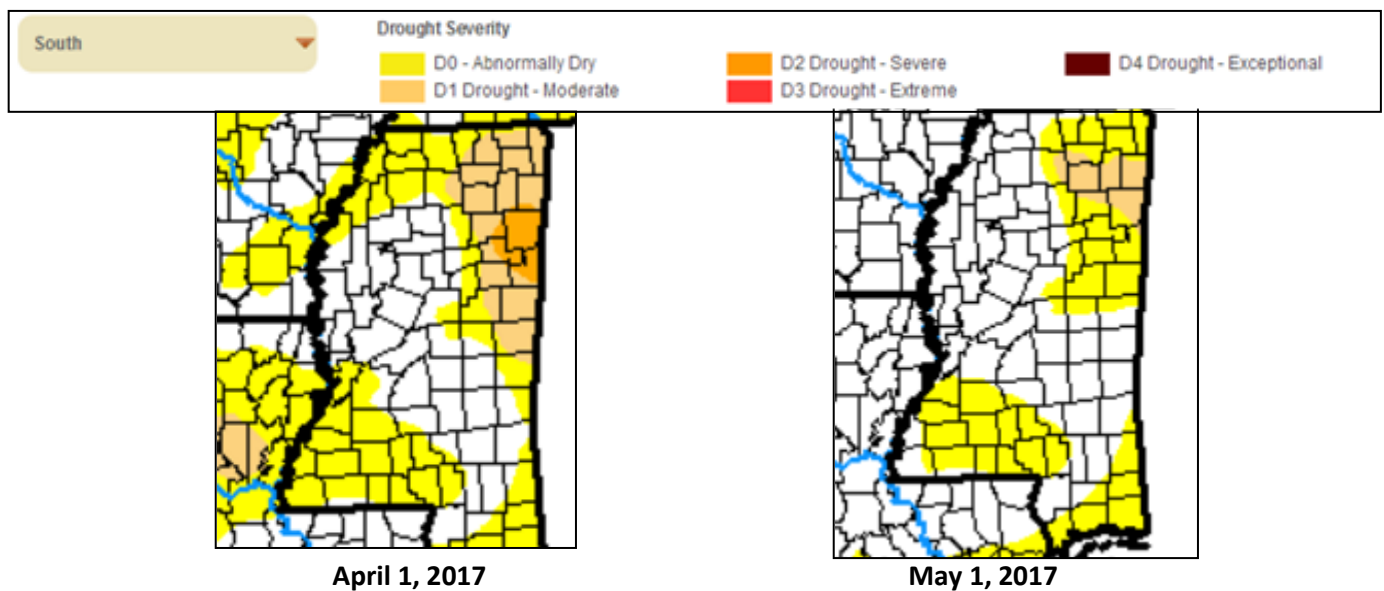
On the last day of the month, a squall line blew through Louisiana and affected the northeast Louisiana parishes. This area received up to 3" to 4" of rainfall.

## River and Soil Conditions

### Soil Moisture Map:

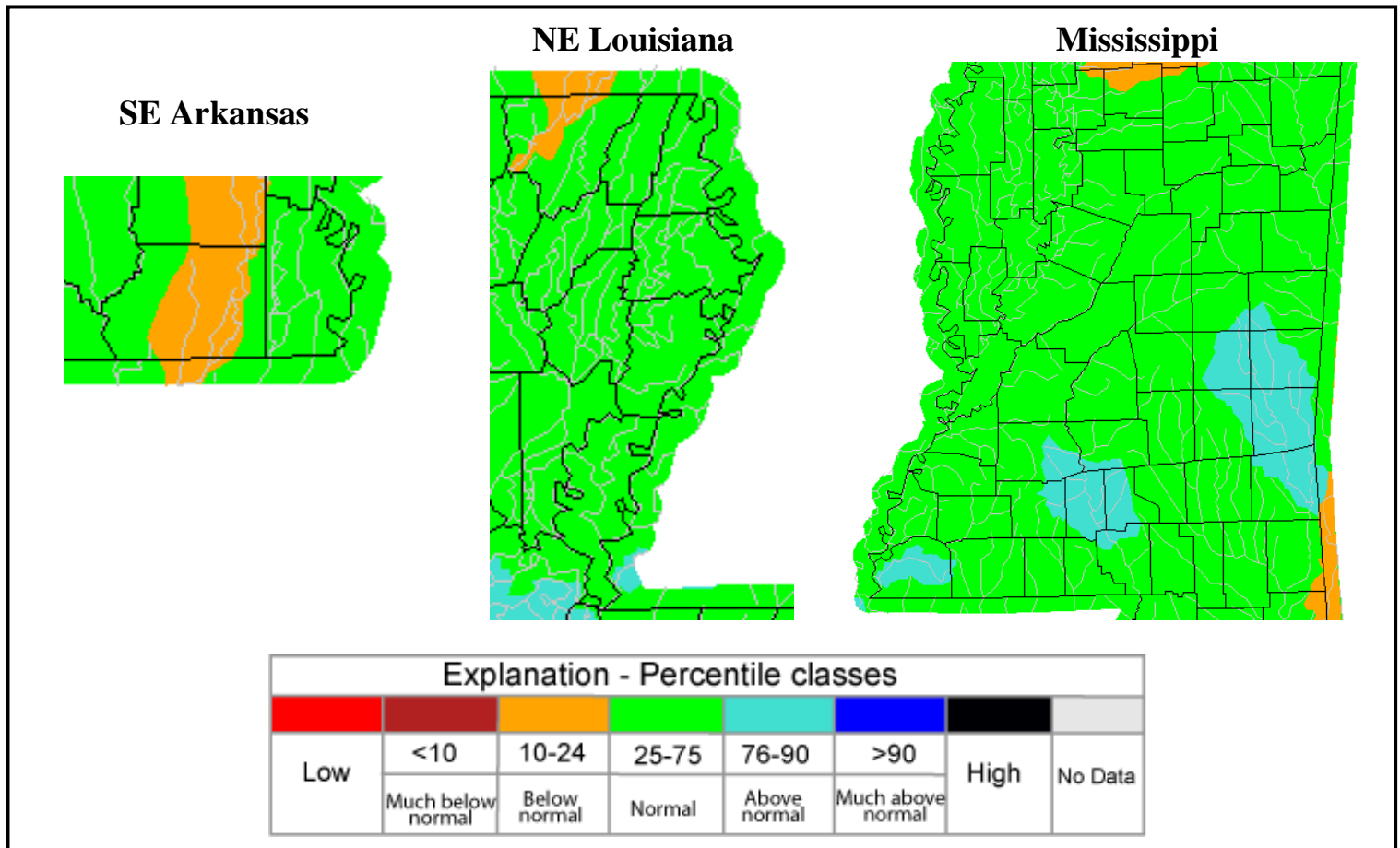


### Drought Comparison:



**Streamflow:**

The United States Geological Survey's (USGS) April 2017 river streamflow records were compared with all historical April streamflow records. Normal streamflow was seen throughout most of the HSA. Only below normal streamflow was experienced on Bayou Bartholomew. Above normal streamflow was experienced on part of the Lower Pearl River basin and the Chickasawhay River basin.

**River Conditions:**

Heavy Rainfall at the first of the month produced minor flooding on the Pearl River and tributaries. The only point that experienced moderate flooding was the Pearl River at Jackson. Minor to moderate flooding occurred across the Big Black River Basin. Minor flooding was reported on the Tallahala Creek, Chunky River, Chickasawhay, and Noxubee. All other river systems had minor to moderate rises. The Mississippi River experienced a moderate below flood stage rise, cresting around the middle of the month.

**Climatic Outlook and Flood Potential:**

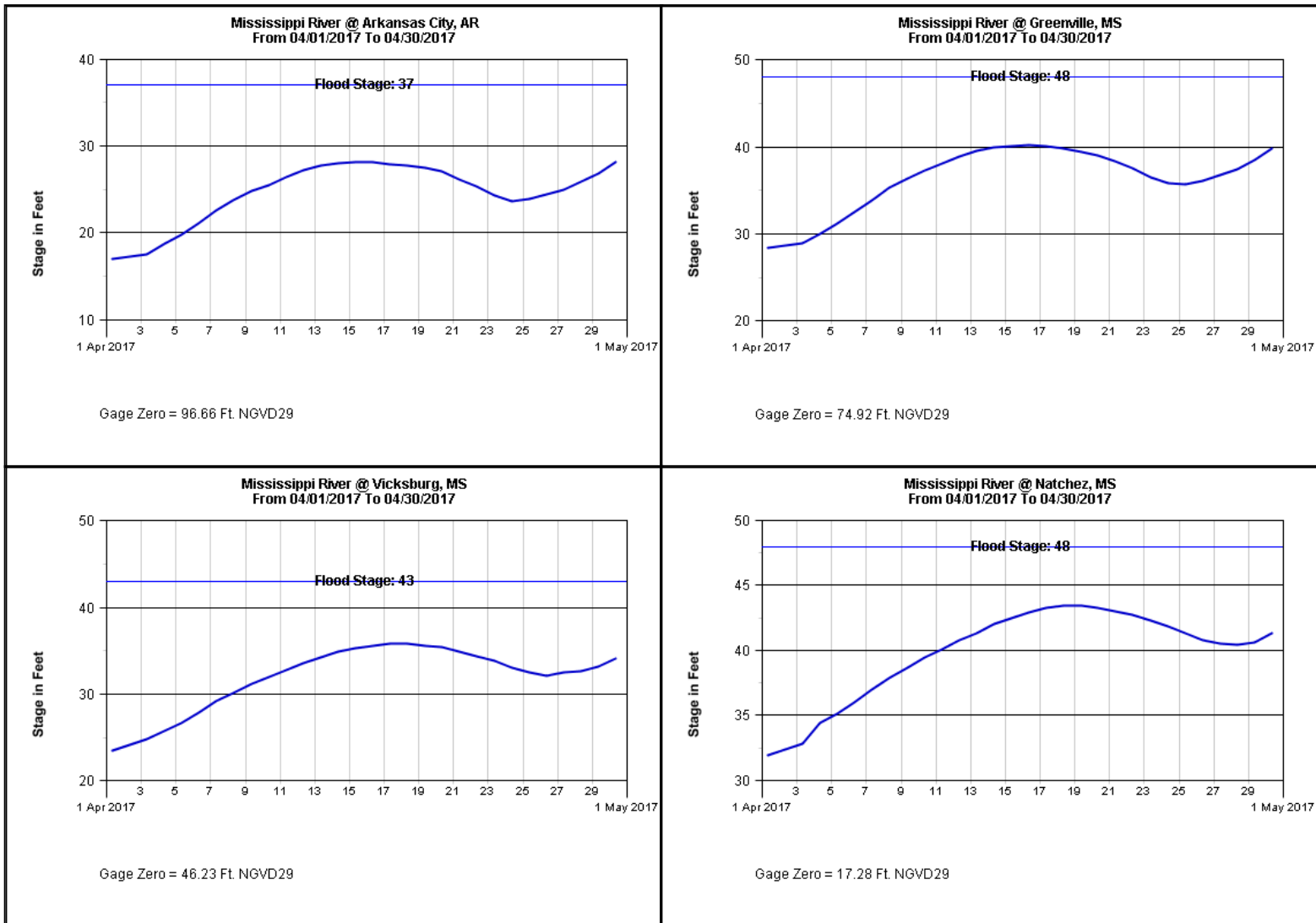
The climatic outlook shows good chances for above normal temperatures over the next three months for the whole HSA. In regards to precipitation, the outlook indicates equal chances for above, normal or below regular rainfall for the whole HSA. Thus, based on current soil moisture, streamflow, and the 3-month climate outlook, the flood potentials are thus:

Pearl River System: Normal.  
Yazoo River System: Normal.  
Big Black River System: Normal.  
Homochitto River System: Normal.  
Pascagoula River System: Normal.  
Northeast LA and Southeast AR: Normal.  
Tombigbee River System: Normal.  
Mississippi River: Normal.

# Mississippi River Plots April 2017

## Plots Courtesy of the United States Army Corps of Engineers

### Monthly Preliminary High and Low Stages:



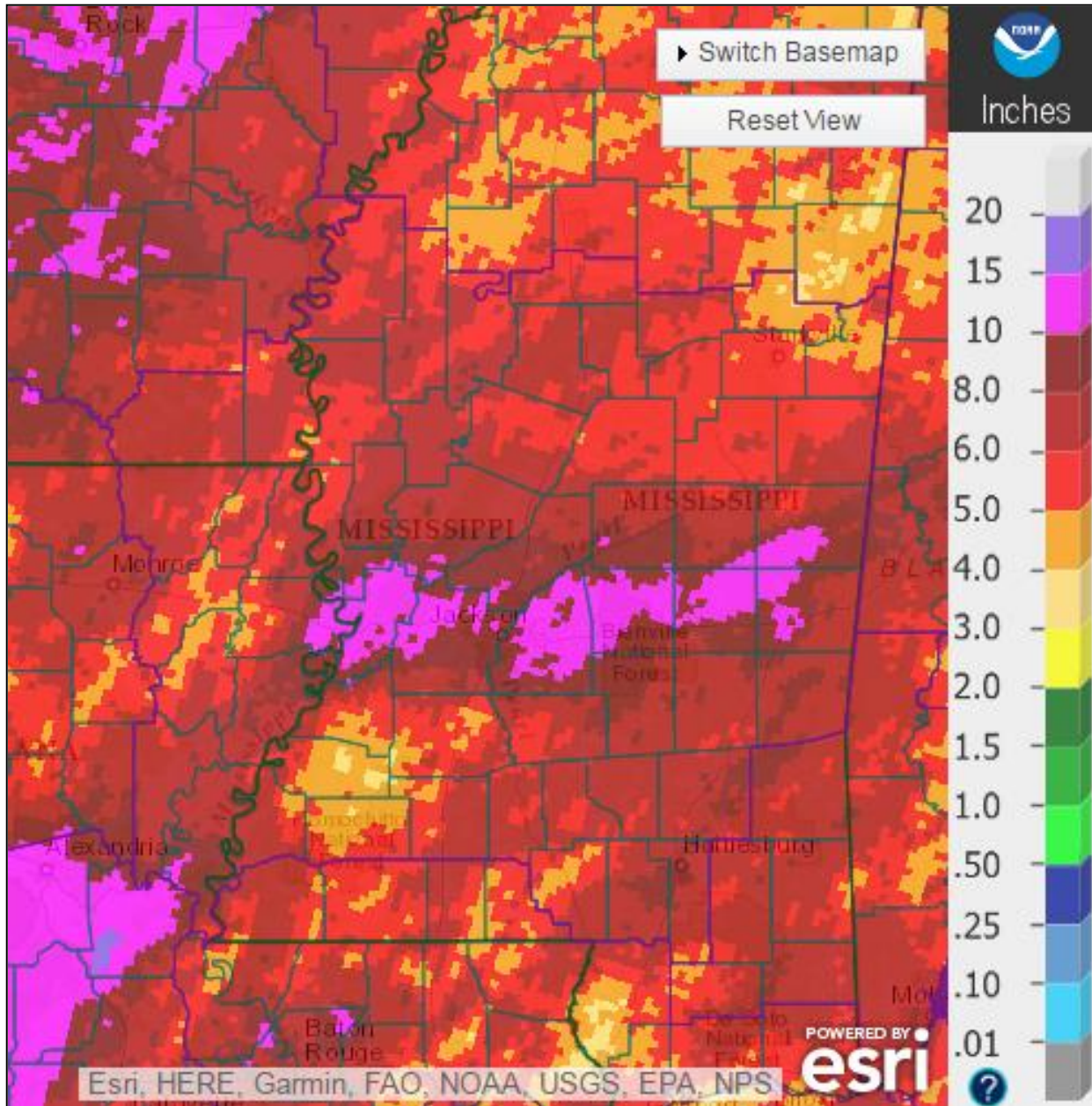
Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	28.20	4/30	16.94	4/01
Greenville	48	40.27	4/16	28.42	4/01
Vicksburg	43	35.78	4/18	23.53	4/01
Natchez	48	43.43	4/18	31.99	4/01

## Rainfall for the Month of April

During the period from 7 am March 31<sup>st</sup> until 7 am April 30<sup>th</sup>, the largest rainfall amounts from NWS Cooperative Observers were:

**This will be updated at a later time**

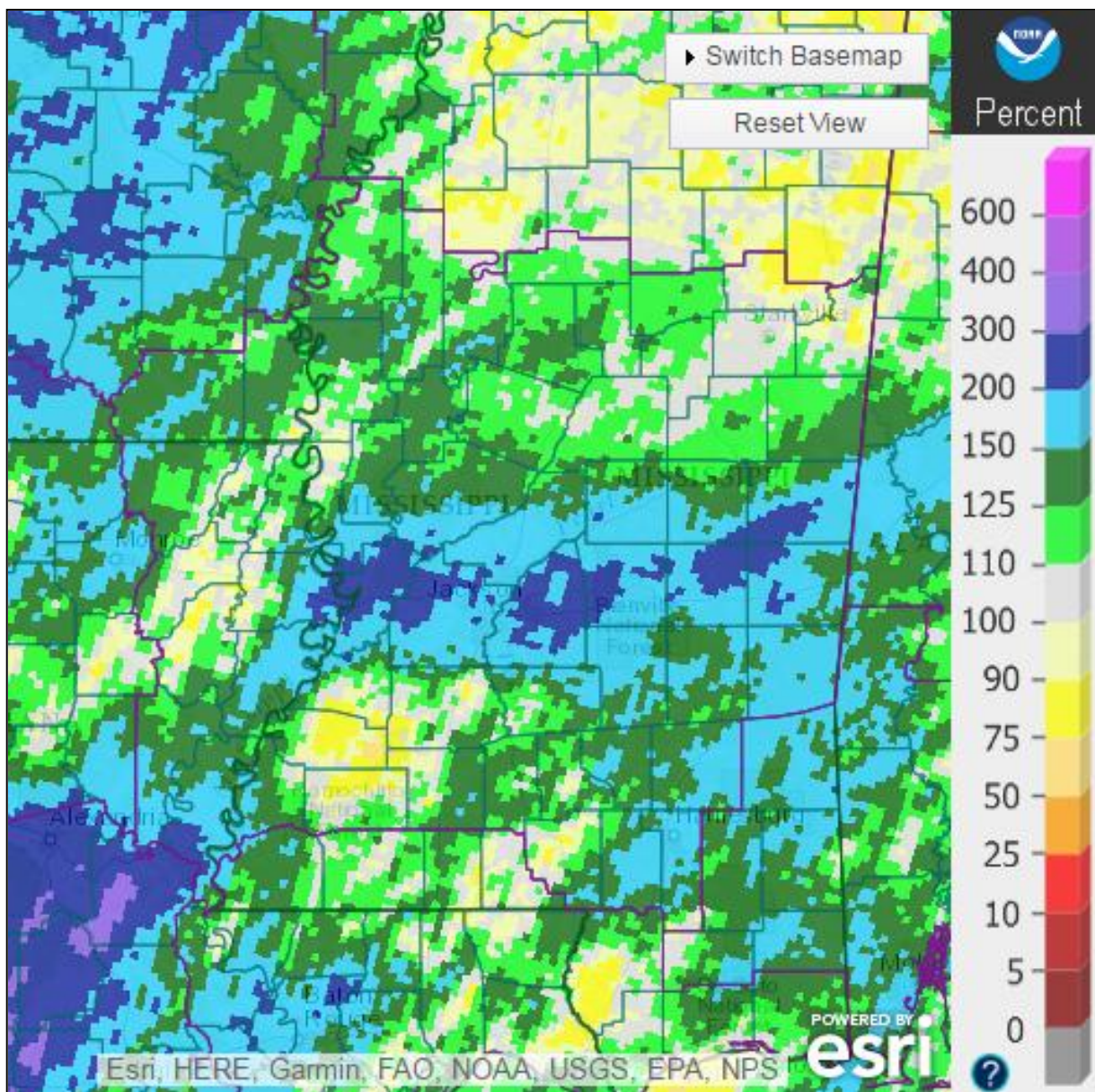
### April Rainfall Estimates:



Note: Observer rainfall and MPE in April may differ due to time differences.



### April Percent of Normal Precipitation:



Note: Observer rainfall and MPE in April may differ due to time differences.

### April Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2017 Rainfall	2017 Departure from Normal
Jackson (KJAN)	10.46	+5.50	25.19	+5.46
Meridian (KMEI)	9.93	+5.15	25.27	+4.34
Hattiesburg (KHBG)	8.88	+3.95	23.62	+2.06
Vicksburg (KTVR)	10.98	+6.01	20.60	+0.26
Greenville (KGLH)	4.80	-0.01	14.69	-4.66
Greenwood (KGWO)	5.96	+0.83	18.21	-0.17

Total Flood Warning products issued: 26  
Total Flood Statement products issued: 153  
Total Flood Advisories MS River: 0  
Daily Climate and Ag WX Products (AGO'S) issued: 30  
Daily CoCoRaHS Rainfall Products (LCO'S) issued: 30  
Daily River and Lake Summary Products (RVD'S) issued: 30

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&  
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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District  
USGS Ruston District  
USACE Mobile District  
USACE Vicksburg District  
USACE Mississippi Valley Division  
USGS Mississippi District  
SRH Climate, Weather and Water Division  
Lower Mississippi River Forecast Center  
Pearl River Valley Water Supply District  
Hydrologic Information Center  
Southern Region Climate Center  
Pat Harrison Waterway District  
Pearl River Basin Development District